AT-S20 Version 3.1.2

for the AT-3716XL, AT-3726XL, AT-3714FXL, AT-3726, and AT-3714F family of switches

Software Release Notes

Note: Please read this document in its entirety as it contains important operational information that may affect your network.

Caution: Do NOT install any AT-S20 versions prior to version 3.0.2 on the 3700XL (i.e., AT-3716XL, AT-3726XL, and AT-3714FXL) switches.

These release notes cover the following for the 3700 family of switches running firmware AT-S20 Version 3.1.2:

- Feature Set
- New Features
- SNMP
    1. MIB Support
    2. SNMP Management
- Corrections
- Bug List with Workarounds
- Limitations

This version of the software applies to the following switches in the 3700 family:

- AT-3726
- AT-3714F
- AT-3716XL
- AT-3726XL
- AT-3714FXL

The AT-3726 and AT-3714F switches are existing switches in the product family. They may be upgraded to AT-S20 version 3.1.2 from previous versions.

The AT-3716XL, AT-3726XL, and AT-3714FXL are recent additions to this family. They are similar to the existing AT-3726 and AT-3714F switches, with additional features.

Feature Set

All of the switches have the following major features:

- 24 10Base-T ports with one 100Base-TX port (AT-3726, AT-3726XL)
- 16 10Base-T ports with one 100Base-TX port (AT-3716XL)
- 12 10Base-FL ports with one 100Base-FX port (AT-3714F, AT-3714FXL)
- Optional 100Base-X port can be configured either with 100Base-TX or 100Base-FX port
- Half or full duplex operation on all switched ports delivering up to 200 Mbps of bandwidth to servers, routers, or other switches
- IEEE802.3u Auto-negotiation on all TP ports
- Port mirroring with separate RJ45 jack
- Non-blocking, clear-channel architecture delivers wire-speed switching
- Shared memory architecture of a 2 Mbyte-packet buffer (1MB on the AT-3714) using cost-effective EDO DRAM, thereby virtually eliminating packet loss
- Store-and-forward and fragment-free cut-through switching modes for the AT-3726 and AT-3714F switches; store-and-forward only for the AT-3716XL, AT-3726XL, and AT-3714FXL switches
- Stores up to 1952 MAC addresses for AT-3726 and AT-3714F switches, and 2048 MAC addresses for AT-3716XL, AT-3726XL, and AT-3714FXL switches
- Flash memory for convenient firmware upgrades
- Transmit pacing for reducing the probability of collisions during heavy traffic
- Bridging support, including Spanning Tree Protocol (STP)

- System configuration, management, and diagnostics using Allied Telesyn's interface, Omega, accessible out-of-band via an RS-232 connector and in-band via Telnet or Web-browser
- Software upgrades using Xmodem via the RS232 port or TFTP to download software to other switches on the network
- SNMP agent that allows the switch management from the user's network management station
- Support for TCP/IP's BootP parameters and Dynamic Host Configuration Protocol (DHCP)
- Support for DEC VT100/ANSI (the default), or generic ("dumb") terminal configuration
- Internet Control Message Protocol (ICMP) Echo "PING" support
- Domain name service support (DNS)
- Multicast address support - The port configuration capability is expanded to allow the user to specify the recipient ports for multicast packets.
- Web-Based Management - In addition to the Omega command menu interface, the management functions are now available through an Internet browser (Microsoft Internet Explorer or Netscape Navigator, version 3.0 or higher). This provides easy and ready access to the management functions via a GUI interface. Users connect by IP address and are able to do the management functions similar to those available via the Omega command menu screens. In addition, users have easy access to the ATI home page and product manuals via the web links provided.

The following features apply to the 3700XL switches only (3716XL, 3726XL, and 3714FXL):

- IEEE 802.1Q compliant VLAN tagging
- Security for unauthorized MAC address access and intrusion detection and notification
- Backpressure option for switch flow control
- Port mirroring for both transmit and receive, and port mirroring for 100Mb uplinks as well as the 10Mb ports

Changes in Version 3.1.2:

- **The Extended Diagnostics - Flash PROM test has been disabled in version 3.1.2.**

New Features in Version 3.1.1:

- **Port Trunking - The two 100Mb uplinks (port A and port B) can be configured to function as a single logical uplink port to increase the bandwidth to 200Mb.**
- **Global Port Configuration - This feature provides the capability to configure all base ports (10Mb ports) in the switch at the same time. This is done by configuring one port, and then copy those port parameters to all the other base ports via a menu selection provided.**
- **New MIB - The ATI proprietary MIB (ATSWTCH2.MIB) has been updated. The latest version is 1.8 and it should be used with this version of the software.**

SNMP Support

MIB Support

MIBs are classified into two categories:

- standard: these MIBs are developed by a working group of the IETF. The prefix for the OBJECT IDENTIFIER assignments for these MIBs is under mgmt subtree.
- enterprise-specific: Individual products have features not covered by the standard MIBs. Vendors are developing their-own product-specific MIBs under the enterprise subtree.

SNMP Management

The switches can be managed by any SNMP manager that conforms to the standard, for example, CastleRock SNMPc Network Management product or Allied Telesyn's AT-View Network Management System.

The following is the compiled list in order for the SNMPc product from CastleRock:

- Standard.mib (RFC1213)
- SNMPV2.MIB
- DHCP MIB (Proprietary Enterprise Specific)
- ATSWTCH2.MIB (Switch Proprietary Enterprise Specific)
- RFC1493.MIB
- RFC1573.MIB
- RFC1643.MIB

AT-View support for the 3700 and 3700XL family of switches will be available at a later date.

The enterprise MIB files are available on: www.alliedtelesyn.com, ftp.alliedtelesyn.com, bbs (425) 483-7979.

See the *AT-S20 User's Guide* on how to set up the switches SNMP parameters. This guide is located on Allied Telesyn's website at **alliedtelesyn/manuals.htm** See the SNMPc Network Management Reference Guide for information on managing MIB objects.

Corrections

The following problems have been fixed in version 3.1.1 and 3.1.2:

1. **Problem:** When Static MAC Addresses are added using Omega, the SNMP agent assigns it to an incorrect port. For example, add a Static MAC entry and assign it to port 18. Now check the SNMP variable atswitchStaticMACEntry. The MAC is reported correctly but the assigned port is Port 31.

Status: This problem has been fixed.

2. **Problem:** An IP address obtained through DHCP does not timeout after the DHCP timer has expired.

Status: This problem has been fixed.

3. **Problem:** When deleting VLANs from the VLAN Definitions Menu, the screen display may become corrupted. The VLAN deletion does take place however.

Status: This problem has been fixed.

4. **Problem:** If a switch obtains an IP address from a DHCP server, the gateway setting is not implemented. Therefore remote management or pinging to the unit across a router is not possible until the gateway is manually reset.

Status: This problem has been fixed.

5. **Problem:** The following SNMP MIB objects are not supported:

a. atswitchStaticMACAddress
b. atswitchStaticMACPort
c. atSwitchPortSTPCost
d. atSwitchPortSTPPriority
e. atswitchDHCPNextDHCPServerAddress

Status: This problem has been fixed.

6. **Problem:** Assigning of static MAC addresses through SNMP is not supported in this release.

Status: This problem has been fixed.

7. **Problem:** Multicast and static addresses that are set up only work within the default VLAN (Tag = 01). Traffic destined to static addresses defined in other VLANs will be sent to all ports.

Status: This problem has been fixed.

8. **Problem:** The VLAN Definition screen may become hard to read if the number of ports included in a VLAN exceeds 20 and wraps around to a new line.

Status: This problem has been fixed.

Bug List with Workarounds

The following are known problems of AT-S20 Version 3.1.2:

1. **Problem:** While using the Omega Management screens, if the Port Names are extremely long or contain any control characters, the Port Numbers may become unreadable.

Workaround: Limit Port Names to 20 alphanumeric characters or less.

2. **Problem:** If user selects port mirroring on a half-duplex port and requests only receive packets, both transmit and receive packets will be mirrored. (for 3700XL switches only)

Workaround: Set filter parameters in the network monitor to screen out unwanted packets.

3. **Problem:** In the Port Spanning Tree Configuration screen, entering ports by number does not work properly (VT-100 mode only).

Workaround: Use arrow keys to choose port.

4. **Problem:** SNMP Trap for Topology Change is sent even when Spanning Tree is disabled.

Workaround: Filter Topology Change trap out.

5. **Problem:** In the Ethernet Statistics menu, the “More...” option displays additional pages of the per port statistics information. This option does not always work for some consecutive “More...” navigational sequences.

Workaround: Exit the menu and re-enter the menu screen and choose “More...” option again.

6. **Problem:** The following SNMP MIB objects are not supported:

a. atSwitchMirrorState
b. atswitchPortAutoSenseorHalfDuplex
c. atSwitchPortTransmitPacing

Workaround: Use Omega to get/set this information.

Limitations

1. SNMP MIB object ‘dot1dTPFdbEntry’ table shows 3-4 duplicate MAC addresses at the end of the table.

2. If you use the MIB to access the DHCP information, the information is returned but very slowly. For example, performing an SNMP getnext on the DHCP MIB may take up to 25 seconds to complete.

3. In the “Receive Statistics Graph” menu, alignment errors are reported as CRC errors.

4. When a connection is added to a switch, an initial link_down trap is sent prior to the link_up trap. This initial link_down trap is extraneous and can be ignored.

5. When intrusion notification is enabled for the security feature, the following trap is sent when an intrusion is detected (with sample values shown). The text of the trap indicating intrusion detection is missing from the trap. (Trap: P3 105 indicates that it is intrusion.)

```
12/4/98 16:33:42 149.35.200.231 Trap: P3 105,  ent=atiProduct.4.32,
comm=public, ifIndex=1   149.35.200.231
```

6. When implementing passwords in conjunction with the use of web-based management, only the following alphanumeric characters are allowed:

‘A’ through ‘Z’
‘a’ through ‘z’
‘0’ through ‘9’
‘+’ and ‘/’

If the password you assign contains any other character and you are accessing the unit via a web browser, the password will be rejected and prevent access to the management software.

Contacting Allied Telesyn Technical Support

You can contact Allied Telesyn Technical Support at:

For Technical Support or Service		
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